

## REMARKS

### I. Status of the Application

Claims 1, 3-15, and 25-30 are pending in the application. In the office action dated April 22, 2004, the Examiner:

- 1) Objected to claims 1, 9, 25, and 27 because of informalities;
- 2) Rejected claims 1, 3-15, and 27-30 under 35 U.S.C. §102(e) as allegedly being anticipated by U.S. Patent No. 6,219,590 to Bernaden, III et al. (hereinafter "Bernaden"); and
- 3) Rejected claims 25 and 26 as allegedly being unpatentably obvious over Bernaden in view of U.S. Patent No. 6,388,399 to Eckel (hereinafter "Eckel").

In this Amendment, applicants have amended claims 1, 9, 25, and 27 to clarify the claimed subject matter. Applicants traverse the Examiner's rejections of claims 1, 3-15, and 25-30 over the prior art and respectfully request reconsideration in light of the foregoing amendments and the following remarks.

### II. The Objections to Claims 1, 9, 25, and 27 Based on Informalities are Moot

The Examiner objected to claims 1, 9, 25, and 27 for informalities. The Applicants have amended claims 1, 9, 25, and 27 as required by the Examiner. It is therefore respectfully submitted that the objections to claims 1, 9, 25, and 27 as based on informalities should be withdrawn.

### III. The Prior Art Rejections Should be Withdrawn

In the April 27, 2004 office action, the Examiner rejected claims 1, 3-15, and 25-30 as being anticipated by Bernaden or obvious over Bernaden in view of Eckel. For the reasons discussed below, neither Bernaden nor Eckel, taken either alone or in combination, teach, show or suggest all of the limitations of claims 1, 3-15, and 25-30.

#### A. Claim 1

Claim 1 stands rejected as being anticipated by Bernaden. As will be discussed below in further detail, Bernaden fails to disclose each and every element of claim 1.

##### 1. The Invention of Claim 1

Claim 1 is directed to a network device controller that includes a device driver. The device driver selectively controls an end device in a control network and comprises the following:

- a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals;
- at least one intermediate selector for selecting at least one second output signal from said first output signals; and
- an output selector for selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal.

Thus, the device driver includes a plurality of input selectors, at least one intermediate selector and an output selector. (See Application at claim 1). The plurality of input selectors are configured to select a plurality of first output signals from a plurality of first input signals. The at least one intermediate selector operates to select at

least one second output signal from the first output signals. The output selector is operable to select an operating mode of the end device from a plurality of predefined operating modes base on said second output signal.

## 2. Bernaden

Bernaden is directed to a controller for operating a variable air volume terminal unit of an environmental control system. The controller comprises a state machine having operational states. (Bernaden at Column 2, lines 55-56). The state machine controller stores data defining conditions for transition between the operational states wherein the state machine controller changes from one operational state to another in response to occurrence of conditions defined by the data. (Id. at Column 2, lines 60-65).

Thus, Bernaden is directed to a controller implemented as a state machine that changes state based on input from space sensors and data stored in memory, and controls the end devices based on the current state.

## 3. Bernaden Does Not Anticipate Claim 1

In the April 27, 2004, office action, the Examiner set forth the following reasoning for the rejection of claim 1 over Bernaden:

Claims 1, 3-15, and 27-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Bernaden, III et al. . . .

Referring to claim 1, Bernaden discloses a network device controller (col. 3 lines 30-50) comprising a device driver for selectively controlling an end device in a control network (col. 3 lines 64 through col. 4 line 22) comprising a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals (col. 5 lines 54-65), at least one intermediate selector for selecting at least one second output signal from said first output signals (col. 6 lines 27-33 and lines 43-52, whereby, for example, a heating lockout may be selected which could result in altering the output signal), and an output selector for selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal (col. 5 lines 3-

13, whereby, for example, a damper position would or would not be adjusted).  
(April 27, 2004 office action at pp.3)

The excerpts of Bernaden cited by the Examiner do not provide any teaching or suggestion of the limitations as claimed. For example, the Examiner cites Bernaden at column 5, lines 54-65 as providing the teaching of a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals. This excerpt states the following:

The VAV controller 120 usually operates in a closed loop feedback configuration. The controller responds to dynamics of the HVAC control process and setpoint changes to meet the loads in the controlled space. This closed-loop mode of operations is described by a group of VAV mode states in the automatic classification 202 and comprise states designated heating 206, satisfied 208, and cooling 210. The controller automatically selects the state required to heat or cool the space, as necessary. In the cooling state 210, the VAV terminal unit 100 provides cool air to the space, if the zone temperature from the temperature sensor 128 is greater than the cooling zone temperature setpoint stored in memory.

(Bernaden at column 5, lines 54-65).

The Applicant respectfully submits that the excerpt of Bernaden cited above does not provide any teaching or suggestion of a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals as claimed. Furthermore, the drawings that are referred to in the excerpt (Bernaden, Fig. 3 and Fig. 4) do not provide any teaching or suggestion of a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals as claimed either. To the contrary, Fig. 2 of Bernaden appears to show a single input selector 122.

Moreover, the Examiner cites Bernaden column 6, lines 27-33 and lines 43-52 as providing the teaching that at least one intermediate selector for selecting at least one second output signal from said first output signals. The Applicant has carefully reviewed this excerpt and cannot find any teaching or suggestion of a an intermediate selector for

selecting at least one second input from said first output signals as claimed. These excerpts relate to various states of the Bernaden device. However, it is not clear what could constitute the first output signals nor what device selects them.

For all of the foregoing reasons, it is respectfully submitted that Bernaden fails to teach or suggest each and every element of claim 1. As a consequence, the rejection of claim 1 should be withdrawn.

Moreover, if the rejection of claim 1 is maintained after considering the remarks presented herein, the Examiner is respectfully requested to specifically indicate what in Bernaden the Examiner is stating is equivalent to the limitations of claim 1. For example, where does Bernaden disclose a plurality of input selectors, intermediate selectors, or output selectors. Clarification is respectfully requested.

B. Claims 2-10

Claims 2-10 stand rejected as allegedly being anticipated by Bernaden. Claims 2-10 depend from and incorporate all of the limitations of claim 1. Accordingly, for at least the same reasons as those set forth above in connection with claim 1, it is respectfully submitted that the anticipation rejection of claims 2-10 should be withdrawn.

C. Claim 11

Claim 11 stands rejected as allegedly being anticipated by Bernaden. Claim 11 is directed to method of selectively controlling an end device in a control network comprising the following steps:

selecting a plurality of first output signals from a plurality of first input signals using a device driver provided in a controller;

selecting a second output signal from said plurality of first output signals using said device driver; and  
selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal using said device driver.

The discussion above in relation to claim 1 is relevant to the discussion of claim 11. To this end, it is noted that the Examiner cites the same excerpts from Bernaden as providing the teachings of the of claim 11 as cited for providing the teachings of claim 1. As discussed above in connection with claim 1, Bernaden, at column 5, lines 54-65 fails to disclose, among other things, selecting a plurality of first output signals form a plurality of first input signals using a device driver provided in a controller nor does it disclose Bernaden disclose at column 6, lines 27-33 and lines 43-52, selecting a second output signal from said plurality of first output signal using said device driver.

For reasons similar to those discussed above in connection with claim 1, it is respectfully submitted that Bernaden fails to teach or suggest each and every element of claim 11. As a consequence, the rejection of claim 11 should be withdrawn.

D. Claims 12-15

Claims 12-15 stand rejected as allegedly being anticipated by Bernaden. Claims 12-15 depend from and incorporate all of the limitations of claim 11. Accordingly, for at least the same reasons as those set forth above in connection with claim 11, it is respectfully submitted that the anticipation rejection of claims 11-15 should be withdrawn.

E. Claims 25 and 26

Claims 25 and 26 stand rejected as allegedly being obvious over Bernaden in view of Eckel. Claims 25 and 26 depend from and incorporate all of the limitations of claim 1. Accordingly, claims 25 and 26 all include limitations directed to a device driver having a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals and at least one intermediate selector for selecting at least one second output signal from said first output signals.

The Examiner cites Eckel as providing the teachings that software may be used for each device controlled by a controller and the use of a LON control network. (April 27, 2004 Office Action at pp. 6). The Examiner does not allege that Eckel teaches the limitations of a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals or at least one intermediate selector for selecting at least one second output signal from said first output signals. As a consequence, Eckel does not cure the deficiencies of Bernaden discussed above in connection with claims 1 and 11.

Accordingly, because the combination of Bernaden and Eckel proposed by the Examiner fails to include a plurality of input selectors for selecting a plurality of first output signals from a plurality of first input signals and at least one intermediate selector for selecting at least one second output signal from said first output signals, it is respectfully submitted that the rejection of claims 25 and 26 over Bernaden in view of Eckel should be withdrawn.

F. Claim 27

Claim 27 stands rejected as allegedly being anticipated by Bernaden. Claim 27, inter alia, recites the following limitations:

one or more selectors for selecting a plurality of first output signals from a plurality of first input signals;  
one or more selectors for selecting at least one second output signal from said first output signals; and  
one or more selectors for selecting an operating mode of the end device from a plurality of predefined operating modes based on said second output signal.

Thus, Claim 27, like claim 1, recites one or more selectors for selecting a plurality of first output signals from a plurality of first input signals, or one or more selectors for selecting at least one second output signal from said first output signals. As discussed above in connection with claim 1, Bernaden fails to disclose such limitations.

As a consequence, for reasons similar to those discussed above in connection with claim 1, it is respectfully submitted that the anticipation rejection of claim 27 should be withdrawn.

G. Claims 28-30


Claims 28-30 stand rejected as allegedly being anticipated by Bernaden. Claims 28-30 depend from and incorporate all of the limitations of claim 27. Accordingly, for at least the same reasons as those set forth above in connection with claim 27, it is respectfully submitted that the anticipation rejection of claims 28-30 should be withdrawn.



IV. Conclusion

For all the foregoing reasons, it is respectfully submitted that the applicants have made a patentable contribution to the art. Favorable reconsideration and allowance of the application is therefore earnestly solicited.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'H. C. Moore', written over the words 'Respectfully Submitted,'.

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